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Let’s face it, most companies need a culture intervention – something like a 12-step program. This article will explore behavioral issues that are often at the core of a culture of neglect and mediocrity. It borrows much from management science, leadership principles and conversations with individuals working in the field of maintenance reliability.

**Traits of a Bad Maintenance Culture**

It doesn’t take long to recognize the signs of a bad maintenance culture, although the profile of this culture can vary considerably. The culture profile might be characterized by indifference, blame, tension between operations and maintenance, frustration or anger, distrust, pessimism, high staff turnover, waste of time and resources, excessive human errors, an aging work order backlog, frequent unscheduled maintenance events, crisis and unprofitability.

Breakdown maintenance and a bad maintenance culture also go hand in hand. Constantly reacting to machine failure demotivates maintenance staff. In such cases, the plant’s machines control the work schedule, not the other way around.

As the phrase goes, “People quit their boss, not their job.” Employees quit because they aren’t properly managed or leadership hasn’t created an appropriate organizational culture. Regardless, good culture is the remedy for it.

Machine reliability is a behavioral science, cascading down from management to the plant floor. Years of root cause analysis (RCA) confirms that bearings don’t just die; they’re murdered. They are murdered by people who don’t know how or don’t care to prevent these failures. Again, good culture changes behavior and enables reliability.

**Turn to the Past to Change the Future**

Of course, the best predictor of future behavior is past behavior. Past behavior establishes reputation, which many people use to judge others. You can judge culture in a similar way to help predict future maintenance reliability performance. Behavior, values and decisions are all components of employee engagement, which sharply impacts individual and business performance.

A positive, nurturing maintenance culture is a critical plant asset. For example, when people do good work, they feel good about themselves and their jobs. When people do bad work, they feel bad about themselves and their jobs. Feeling bad is a serious morale problem that multiplies and spreads. The simple solution is to enable people to do good work that is recognized and celebrated.

Culture drives behavior. Behavior influences quality of work. Quality work is fundamental to plant reliability and the cost of reliability. But why should you care? Because reliability fosters job security and builds shareholder value. Bad culture is dysfunctional and sparks a chain of despair for all stakeholders. No amount of expertise in machine reliability will overcome the destructive aftermath caused by a rotten maintenance culture. It has inertia that over time becomes increasingly difficult to change.

Good culture has inertia, too. It fuels a chain of reinforcing successes. Small successes beget larger and more sustainable successes. Creating a good culture starts and ends at the top, at the leadership level. When good leaders are in charge, everyone wins. When bad leaders are in charge, the culture becomes negative, hostile, stagnant, and everyone loses. Good culture also emerges from management’s aspiration for improvement and the inherent desire to do good work. It relates to skills, tools, work plans and machine readiness.
Management and leadership both define and catalyze the culture of an organization, whether good or bad. Even bad culture that is rooted in high institutional inertia can be changed. This change may be more difficult and even somewhat disruptive, but it is far from impossible. Still, nothing happens without an unwavering management commitment to create a sustainable foundation for change.

Do you think culture is something that keeps your plant manager awake at night? Maybe this individual doesn’t know how it’s impacting the company’s bottom line. Managers who understand and see plant reliability as a means to plant profitability have the desire to inspire and support culture initiatives that build charged up and prosperous maintenance teams. Stopping the management revolving door is also important.

The role of management on group behavior and culture has been the subject of countless books and publications. It relates to team building, engaged team members, empowerment, communications, goal setting, defining the mission, vision and values and so much more. It goes without saying that you can’t cheerlead your way into sustained cultural transformation. Nor can you manage by memo.

Another way to find wisdom is to study the success of others. What are the common threads of a successful maintenance culture? There are several and most aren’t specific to maintenance, but rather foundational to any operating organization. Because of this, you can leverage the experiences of numerous teams that have successfully tackled the culture transformation challenge. To get started, it’s important to familiarize yourself with the eight pillars of a good maintenance culture.

### 1. The Right People

While employees are a company’s most valuable asset, it is only true when the right people are in the right jobs. Incompetent or poorly matched people working in maintenance positions can present sizable operational and cultural risks, as opposed to being productive assets. Select, nurture and inspire the right people to build a prosperous maintenance culture.

### 2. Job Skills and Know-How

As previously mentioned, when people do good work, they feel good about themselves and their jobs. People want to do the right things right the first time and every time. However, many people suffer from unconscious incompetency. In other words, they are unaware or in denial of the level of their incompetency. Others are fully aware that their skills are desperately lacking.

A prosperous plant culture is a learning culture. Education, when effective, takes people out of their comfort zone. It not only builds intellectual capital, but over time, fosters a behavioral desire to do the right things right every time. It also builds team loyalty and dedication to achieving business goals. People learn differently, so don’t assume knowledge is only acquired in a classroom. Certification instills pride and should be the capstone of each learning stage by providing visible recognition of skill competency.

Next, create a work environment of standardized work, also known as procedure-based maintenance. This takes the guesswork out of thousands of maintenance tasks that must be routinely and periodically performed. These shouldn’t be just any old procedures or those found in machine service manuals. Instead, they should be refreshed with modern concepts in maintenance. Seek the help you need to get these procedures right.

### 3. The Tools

A lot of new technology has entered the world of machine maintenance in recent years. As the old-timers are retiring, so must many of their tools. Today’s maintenance toolbox should be used beyond repair and corrective measures. It should also contain tools and devices that inspect and control conditions that might lead to failure or are incipient symptoms of failure. These include inspection tools, condition monitoring instruments, contamination control devices, etc.

An extremely good starting point is education and creating a culture of strategic training instead of reactive or just-in-time learning. Training programs that present modern and technology-based concepts in maintenance will also detail the tools that enable them. Education and tools bring about pride in one’s work and profession. This is a precursor to a good maintenance culture, so don’t skimp on them.

### 4. Machine Readiness

In addition to a change in your skills and toolbox, you need to change your machinery. You must ready your equipment for wellness and maintainability. Even today’s new machines won’t be equipped with the ancillary hardware to enable quality maintenance. Many machine modifications are often required. These include hardware and accessories related to inspection, safety, sampling, oil analysis, contamination control, oil handling, instrumentation and lubricant applications. Effective training programs will describe what changes are needed and why.
5. Planning, Scheduling and General Organization

In maintenance, there is a need for good workweek control. The “whack-a-mole” approach to maintenance workday scheduling is destructive and costly. Activities need rhythm with few surprises. While this requires proper planning and scheduling, it also demands a built-in early warning system. You can’t plan and schedule corrective action if you can’t proactively see the need. And an organization plagued by chronic, unscheduled maintenance is an organization that is suffering from a bad maintenance culture.

Condition monitoring includes both proactive maintenance and predictive maintenance. Proactive maintenance sees and responds to root causes of failure long before a repair is needed. A good maintenance culture is a proactive maintenance culture. Make breakdown events a rare exception.

Predictive maintenance is a companion to proactive maintenance. It sees and responds to failure symptoms, the earlier the better. Just as it is best to catch a disease early, so too is it important to catch faults and impending machine failure early. Thankfully, technology is available to allow machine condition monitoring at a very high level. When well executed, reactive maintenance is transformed to planned maintenance. This will help get work orders into compliance and reduce or eliminate the backlog of aging work orders.

6. Measurement

When you measure, you are communicating what is important. Likewise, those things that are not measured are assumed to be unimportant. Be aware of what you don’t measure. People subconsciously work the metric. They know how they are being evaluated and respond accordingly through their work behavior. Constant performance measurement, reporting and course corrections are signs of a good maintenance culture.

Measurement should come in many forms and at many different levels, including lagging indicators, leading indicators, macro indicators and micro indicators. Macro indicators are more holistic, providing a big picture view of plant reliability. General asset utilization numbers, such as overall equipment effectiveness (OEE), are good examples of macro metrics.

Micro indicators look at failure causes and symptoms. Overall machine vibration and lubricant cleanliness levels would be examples of micro metrics. Many of these performance indicators report what just happened (lagging indicators), while others report what is going to happen (leading indicators).

7. Motivation and Desire

Maintenance workers are more than just arms and legs performing mindless tasks. They are productive, knowledgeable workers who not only carry out the job plan, but also create, innovate and improve the quality and efficiency of the work performed. Empowerment amplifies a company’s intellectual capital by stimulating the minds of its employees. When employees can act on their thoughts and opinions, they instill pride in their work and are the most productive. This is the definition of engagement.

Recognition and reward are also important to culture. Many companies fail to properly recognize and reward employees who have excelled at creating value. For example, it is way too common to see lube techs at the low end of the pay scale. Some companies enter the cycle of despair by hiring low skilled workers and paying them accordingly. Too often, companies use demeaning job titles, such as calling a lubrication technician an “oiler.” An oil can is an oiler; it is an object that performs a mechanical and repetitive task. A lube tech is a thinking human being who has mastered the skills needed to perform the job and whose impact on a machine, team and organization is conveyed as important.

There are also many nonmonetary types of rewards. Companies that fail to celebrate when they don’t have broken machines can earn between now and next Tuesday. Investment, however, is a long-term strategy that cultivates a productive culture.

8. Investment

Organizations that are lean to the extreme harm their maintenance culture. Many who work in the maintenance field have the mind-set that there is always enough time and money to fix a problem, but never enough time or money to prevent it. At the core of the problem is procuring cheap material and cheap people instead of buying the proper tools, accessories, software and instruments. Too often, companies, especially publicly traded ones, are driven by the desire to see how much money they can earn between now and next Tuesday. Investment, however, is a long-term strategy that cultivates a productive culture.

CONCLUSION

Maintenance culture transformation is no easy task. Take ownership of the program by beginning the process of dismantling your bad maintenance culture and replacing it with the eight pillars of a good maintenance culture. Create a shared vision of what you are trying to achieve. What will it look like? How will the company benefit? How will team members benefit? Until you fix the culture issue, you cannot rise to the lofty state of excellence in maintenance reliability.

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